CLAIMS

1. A network device for handling data comprising:

at least one media port;

at least one high speed docking station communicating with said at least one media port; and

at least one master connected to said at least one high speed docking station, said at least one master configured to handle and process data received by said at least one media port and passed to said at least one master through the at least one high speed docking station;

wherein said network device is configured to handle media ports of different media types.

2. A network device for handling data as recited in claim 1, wherein said network device is configured to handle media ports of different media types utilizing the same at least one high speed docking station.

3. A network device for handling data as recited in claim 1, wherein at least one high speed docking station comprises at least two high speed docking stations and said network device is configured to handle media ports of different media types utilizing different high speed docking stations of said at least two high speed docking stations.

4. A network device for handling data as recited in claim 1, wherein said at least one master communicates with a dedicated CPU to process received data.

5. A network device for handling data as recited in claim 1, wherein said at least one high speed docking station does not create any back-pressure for incoming data from said at least one media port.

6. A network device for handling data as recited in claim 5, wherein each media port of the network device has a maximum bandwidth and said at least one high speed docking station has a bandwidth that is greater than a sum of each maximum bandwidth of each media port of the network device.

7. A network device for handling data as recited in claim 1, wherein said at least one media port comprises at least one port and at least one packet lane communicating between the at least one port and the at least one high speed docking station.

8. A network device for handling data as recited in claim 1, wherein said at least one packet lane comprises a point to point bus providing a direct connection between said at least one port and said at least one high speed docking station.

9. A network device for handling data as recited in claim 1, wherein said at least one packet lane comprises a shared bus, wherein a shared bus protocol mediates the flow of data between said at least one port and said at least one high speed docking station.

10. A network device for handling data as recited in claim 1, wherein said at

least one master comprises at least one service agent, where the number of service agents could be equal or less than the number of media ports.

11. A network device for handling data as recited in claim 10, wherein said at least one service agent has memory and logic blocks associated therewith.

12. A network device for handling data as recited in claim 10, wherein said at least one service agent is configured to pack, un-pack and buffer data received from said at least one high speed docking station.

13. A network device for handling data as recited in claim 1, wherein said at least one media port tags incoming data with tags used to categorize the data by the at least one master.

14. A network device for handling data as recited in claim 13, wherein the tags provides information on a source port and a destination port for the received data and a media type ID for said at least one media port.

15. A network device for handling data as recited in claim 1, wherein said media types comprise media types according to IEEE 802.3 specifications.

16. A network device for handling data as recited in claim 1, wherein said media types comprise media types according to IEEE 802.11 specifications.

17. A network device for handling data as recited in claim 1, wherein said media types comprise media types according to a wireless communication specification which supports data, voice and content-centric applications.

18. A network device for handling data as recited in claim 1, wherein said media types comprise media types according to IEEE 1394 specifications.

19. A network device for handling data as recited in claim 1, wherein said media types comprise media types according to communication specifications for cable modems.

20. A network device for handling data as recited in claim 1, wherein said media types comprise media types according to Synchronous Optical Network specifications.

21. A network device for handling data as recited in claim 1, wherein said media types comprise media types according to specifications for a switched based serial I/O interconnect architecture built for fault tolerance and scalability.

22. A network device for handling data as recited in claim 1, wherein said at least one master comprises at least two masters and said at least one high speed docking station comprises at least two high speed docking stations, wherein said at least two masters are connected by a first of said at least two high speed docking stations and at least one of said at least two masters is connected to said at least

one media port through a second of said at least two high speed docking stations.

23. A method of handling data in a network device, said method comprising:

receiving incoming data at a media port;

forwarding said data to a high speed docking station;

packing said data;

passing said packed data to a master;

processing at least a portion of said packed data by said master; and

forwarding said data to another media port based on the processed contents of said at least a portion of data;

wherein a first media type of said media port is the same or different from a second media type of said another media port.

24. A method of handling data as recited in claim 23, wherein said media port further comprises a port and a packet lane connected to said docking station and wherein said step of forwarding said data to a high speed docking station comprises forwarding data through the packet lane to the docking station.

25. A method of handling data as recited in claim 24, wherein said packet lane comprises a point to point bus providing a direct connection between said port and said high speed docking station.

26. A method of handling data as recited in claim 24, wherein said packet lane comprises a portion of a shared bus, wherein a shared bus protocol mediates

the flow of data between said port and said high speed docking station.

27. A method of handling data as recited in claim 23, wherein the step of forwarding said data to another media port comprises forwarding said data to a second high speed docking station communicating with said another media port.

28. A method of handling data as recited in claim 27, wherein the second high speed docking station is connected to a second master and the another media port communicates with a third high speed docking station connected to the second master and said forwarding occurs between the first master, the second high speed docking station, the second master and the third high speed docking station.

29. A method of handling data as recited in claim 23, wherein said step of receiving an incoming data at a media port comprises receiving data according to IEEE 802.3 specifications.

30. A method of handling data as recited in claim 23, wherein said step of receiving an incoming data at a media port comprises receiving data according to IEEE 802.11 specifications.

31. A method of handling data as recited in claim 23, wherein said step of receiving an incoming data at a media port comprises receiving data according to a wireless communication specification which supports data, voice and content-centric applications.

32. A method of handling data as recited in claim 23, wherein said step of receiving an incoming data at a media port comprises receiving data according to IEEE 1394 specifications.

33. A method of handling data as recited in claim 23, wherein said step of receiving an incoming data at a media port comprises receiving data according to communications specifications for cable modems.

34. A method of handling data as recited in claim 23, wherein said step of receiving an incoming data at a media port comprises receiving data according to Synchronous Optical Network specifications.

35. A method of handling data as recited in claim 23, wherein said step of receiving an incoming data at a media port comprises receiving data according to specifications for a switched based serial I/O interconnect architecture built for fault tolerance and scalability.